

Notes on the Wild Sheep of the Hindoo Koosh, and a species of Cicada. By Capt. HAY.

$$\text{Genus Ovis. Incisors } \frac{0}{8} \text{ Molars } \frac{6-6}{6-6} = 32.$$

Adult male 3 feet 4 inches at shoulder. From nose to tail 5 feet 4 inches; head 1 foot; horns 2 feet 6 inches in length, tip generally broken, and 12 inches in circumference at the base, and turned spirally backwards and downwards, points afterwards incline forward.

A large beard from the cheeks and under jaw, divided into two lobes, neck ponderous, 14 inches long and 24 in circumference.

It has no mane above. General color pale rufous, inclining to grey, fading off to white beneath. Muzzle white; beard on either lobe white, connected to a streak of long black flowing hair reaching to the chest. Legs covered with white smooth short hair; belly white; tail small, short, and together with buttocks white.

Girth of body measured behind shoulders 4 feet.

Has a lachrymary sinus, very perceptible on dissection, there being a deep cavity in the bone under the eye.

The hair is particularly electric.

This differs from the Ovis Tragelaphus (of Dr. Smith), or bearded. Argali, in the following respects—

- 1st. In having a lachrymary sinus.
- 2d. In having no standing mane.
- 3d. In having no long hair on the knees.
- 4th. In colour of horns, which in the species inhabiting the mountains of Mauritania (Morocco) are black.

A variety of the Ovis Tragelaphus, inhabiting the mountains of Upper Egypt, is represented as wanting the mane on the shoulders, but is nevertheless said to have long tufts of hair round the fore knees, which differs from the species inhabiting the hills of the Hindoo Koosh range, and now under description.

They are gregarious in flocks of about 40, and are usually led by an old ram.

The female is inferior in size, and not so much of a rufous colour, and has small horns, inclining backwards and outwards about 6 inches in length. They produce their young in May and June. The lambs are the colour of the female, have a dark stripe down the back, and in front of the fore legs.

On my march with the army of the Indus from Kandahar towards Cabool, I observed a remarkable congregation of the insects commonly known by the name of *Cicadæ*, or *Tettigoniæ*, (Fab.) which in no book on Entomology have I ever seen noticed. These insects, as far as I had hitherto observed in the Eastern Islands, where they are called *Trumpeters*, and in different parts of India, especially in the Himalaya about Simla, where their evening chirping must be familiar to all visitors, have never appeared to me in large societies, an individual person not being able to capture above a dozen of an evening. These likewise have always been confined to wooded countries, and the *Tettigonia* of Italy, and shores of the Mediterranean, the celebrated insect made sacred to Apollo, and mentioned by Virgil, *Cicada stridens*, is, I imagine, always found in thickly wooded countries.

In Afghanistan, where scarcely a tree is to be seen (generally speaking), I have been astonished at finding certainly not less than eight species of this insect; I believe them all to be new, because I have never before met with them, but I regret to say I have not a single book upon Entomology to refer to, and this note not being intended to identify species, but merely to show the very extraordinary numbers they were found in, I shall confine myself to the observations I made.

The first species of *Tettigonia* that attracted my notice was in the month of May at Kandahar, a very diminutive insect, which flew into our tents of an evening; this did not surprise me, because there are trees in the neighbourhood.

But at Jellowgheer, in the Turnuk valley, about fifty miles

from Kandahar, where not a tree is to be seen, or a shrub, excepting the jewassee, which grows in luxuriance, and a few tamarisk bushes, I discovered three larger species of *Tettigonia*, and fully as abundant as any flight of locusts I had ever seen. The prevailing colour was a deep orange, and the stems and branches of the tamarisk were covered with them, as hardly to be able to distinguish a particle of green, and their noise all day was unceasing. The jewassee bushes being at the same time covered with the empty scales of the pupæ, and shewing at once that these insects were bred on the spot: otherwise I should have conceived they were only migrating. Our tents and tent ropes, as soon as pitched, were covered by these insects, in fact every thing looked yellow. They continued in equal numbers for several days march through the Ghiljie country, and I saw in all eight or nine different species. One scarce variety I discovered with pink wings, and another, far less active in flight, appeared upon the ripe ears of corn, and immediately they were approached made a heavy flight for a yard or two and fell to the foot of the corn, not again lighting upon the heads. The wings of this last species have not the transparency that all the others, excepting the pink winged variety, possess.

Fortunate indeed is it that Providence has formed these insects to live by suction, or their damage to the crops if furnished with the jaws of a *Locust*, would be irreparable: their clinging propensities had, however, entirely deprived some branches of their shoots.

Now what appeared to me extraordinary was, that these insects should appear in this country, where there are apparently no birds or animals to feed upon them. Locusts where they appear in vast numbers, as in Africa, always have their destroyers following them: but here not a gryllivorous bird was to be seen, not even the *Vespertilionidæ* to disturb them at night. The only enemies they appeared to have, were some large *Libellulæ*, which pounced upon them, and carried off what appeared to be double their own weight.

The *Pupæ** at seasons must be very abundant, and might even in this country have afforded the Greeks food, as well as the *Pupæ* of the *Locusts*.

* I believe I ought to have written *Larvæ* for *Pupæ*, as they only undergo a semi-metamorphosis.

R. G. H.

Note on the above.

The readers of the Journal who would wish to compare the description of the wild sheep of the Parapomisan range with that of the Himalayas, will find Mr. Hodgson's full and accurate notice of the latter animal Vol. iv. Journal Asiatic Society, p. 492. Capt. Hay, in a letter to me, says, "The enclosed description of our wild sheep at Bameean differs I think from the species in the Himalaya. I have now three lambs in my room perfectly domesticated, but such places as they attempt to climb, show the nature of the mountains they inhabit; what think you of a couple of them setting to work to climb up my chimney, nearly perpendicular, but with projecting bricks here and there! I am anxious to observe their habits, and if any of my notes, &c. &c. &c."

Capt. Hay has in a part of his note on the Cicada alluded to the possibility of the species of insect which he found in such numbers, or their "*larvæ*" furnishing an article of food to the Greeks, in the same manner as the locust. Being curious to see whether any allusion is made by ancient writers to the locust, or Cicada, as an article of food in countries adjacent to Bactria, I referred to the ordinary and well known authorities for information. Pliny alone has, speaking of the locust, (Lib. xi. cap. 29.) "*Tot orbis partibus vagatur id malum. Parthis et hæcibo grata.*" No mention is made of the insects in the accounts extant of Alexander's march (Arrian. Quint. Curt.), nor even in Strabo (Lib. xv.) for the ordinary use of the locust as an article of food with the Bœotians, v. Aristoph. Acharnes. Act. iv. scene 7.

(*πότερον ἀκρίδες ἡδιόν ἐστιν, ἢ κίχλαι.*)

The querist being informed, in reply to this, that "locusts are much better flavoured" (than thrushes) v. also scene 1 of the same act, where a Bœotian comes in selling them, calling them "the four winged." I did not like to publish the whole of Capt. Hay's note, without remarking on what might have appeared startling.

